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(54) Title: FAST READOUT OF MULTIPLE DIGITAL BIT PLANES FOR DISPLAY OF GREYSCALE IMAGES

(57) Abstract

In a method of signal processing for greyscale imaging in which weighted bitplanes corresponding to a greyscale image are stored as binary strings in sequential locations in a memory, in decreasing order of intended duration (weighting), a number of read passes equal to the number of weighted bitplanes are made from the set of stored bitplanes, each pass commencing with the highest order bitplanes and continuing along the stored bitplanes in sequence, the lengths of the sequences being varied and selected such that at the end of the said number of read passes each bit plane has been read out a plurality of times proportional to or equal to its duration (weighting). The method has utility in driving high speed liquid crystal matrix arrays particularly where each bitplane needs to be refreshed. A small ac potential may be applied to the array between writing steps.